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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/614,973

07/08/2003

Michael James Turner

K315.128.101

8841

25281

7590

09/03/2004

DICKE, BILLIG & CZAJA, P.L.L.C.

FIFTH STREET TOWERS

100 SOUTH FIFTH STREET, SUITE 2250

MINNEAPOLIS, MN 55402

EXAMINER

IP, SHIK LUEN PAUL

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/614,973

Applicant(s)

TURNER, MICHAEL JAMES

Examiner

Paul Ip

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/8/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 7/8/2003 in compliances with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (5,905,366), or Elliott (5,998,945 and 2003/0075621) in view of McCann (6,002,233), or Horst (5,844,343 and EP0695020A2), or Mole et al (4,058,746).

With respect to claims 1-6, 8-13, and 15-16, the patent to Wilson discloses a method and apparatus for powering a switched reluctance machine (figure 2) comprising stator windings 14 connected to Power Electronics 26 through the electrical conductors 30, and a coil winding 19 is

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positioned in that magnetic field within, or at least close enough to the stator 11 winding 14 for power to be transferred to the coil 19. The patent/publication to Elliott discloses reluctance machine control circuits comprising a reluctance machine with stator winding(s). See '621 figure 1 and '945 figure 4. Whereas, the claims require a priming winding to excite two or more of the poles of the reluctance machine. However, the patents to McCann '233, Horst ('343 and EP0695020), and Mole et al '746 disclose reluctance machines with primary phase windings and start/auxiliary/priming windings for starting the machines. Since McCann, Horst, and Mole et al disclose the starting problem with the reluctance machines and provide the solution with starting/auxiliary windings for starting the reluctance machines, it would have been obvious to one of ordinary skill in the art to provide Wilson or Elliott with the starting/auxiliary/priming windings reluctance machines as taught or suggested by McCann or Horst or Mole et al.

With respect to claims 7, 14, and 17, Mole et al disclose at column 3 line 40 the use of Gramme ring winding, and the DC link capacitor is being used in the prior art figure 2 of this invention.

#### ***Citation of Pertinent References***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents/publications to Tepavcevic (5,168,203 and 5,113,113), Tang (5,929,590), Jang et al (6,628,034), Torok et al (2002/0047447), and Schoeb (2002/0047401 and 6,559,567) disclose reluctance machines comprising starting/auxiliary windings.

The patent/publication to Coles et al (2003/0020436) and Fukao et al (5,936,370) disclose reluctance control systems.

#### ***Customer Services Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Ip whose telephone number is (571)-272-1941. The examiner can normally be reached on Monday to Friday from 6:30 a.m. to 3:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (571)-272-1207. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Paul Ip", with a stylized flourish at the end.

Paul Ip  
Primary Examiner  
Art Unit 2837